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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/811,467

03/26/2004

Kenneth M. Kiely

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Melvin I. Stoltz
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Milford, CT 06460

EXAMINER

PATEL, DHIRUBHAI R

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 07/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/811,467

Applicant(s)

KIELY, KENNETH M.

Examiner

DHIRU R PATEL

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: SKETCH A

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Part III DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a first, a second recited in claim 5 must be shown or the feature(s) canceled from the claim(s). The examiner suggest showing reference number for a first and a second. A proposed drawing correction or corrected drawings are required in reply to the office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. No new matter should be entered. Applicant is responsible for showing reference number for claimed invention.
2. Applicant is required to submit a proposed drawing correction in reply to this office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Objections

3. Claim 7 is objected to because of the following informalities:
Claim 7 Should be ended with a period.
Appropriate correction is required.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Sheehan (5,912,431) in view of Gretz (6,682,355).

Sheehan discloses:

Regarding claims 1-2, an electrical connector 12 for securely engaging and mounting an electrical cable 36 to a receiving box 18 having a receiving hole 16 formed therein, said electrical connector 12 comprising (see fig 1):

A. a housing having (see sketch A)

a. a generally hollow cylindrical shape defined by an outer

wall, an inner wall, and first 29 and second terminating ends (see sketch A),

b. at least one flange 24 mounted about the outer wall of the housing (see fig 1), radially extending outwardly therefrom (see fig 1), and comprising a diameter greater than the

diameter of the receiving hole formed in the receiving box 18 (see fig 1 and entire

specification), and c. a threaded zone 27 formed on the outer surface thereof and

extending between the flange and the adjacent first terminating end (see fig 2);

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B. an inner sleeve member 30 (see fig 2), comprising

a. a substantially hollow, substantially cylindrical shape, having an inner surface 36, an outer surface 35, and two terminating ends 32, 34, dimensioned for mating, engagement within the inner wall of the housing to form a substantially integral construction therewith (see fig 2 and entire specification), and

c. a locking ring/nut 50 construction for threaded (see fig 1), mounted engagement to the threaded zone of the housing, for securely affixing the housing in a receiving hole 16 of a receiving box (see fig 1); whereby said electrical connector is achieved which is quickly and easily assembled and securely mounted to any desired box or plate, providing electrical conductivity and grounding (see fig 2 and entire specification), but fails to disclose a pair of arm members extending inwardly from the inner surface of the sleeve member and positioned for mating engagement and securement with an electrical cable when inserted therein. Gretz teaches the use of a pair of arm members 74 extending inwardly from an inner surface 60 of the sleeve member 54 in order to hold it fast to the trailing end of the connector and improving continuity and lowering the millivolt drop between the cable, the fitting and the panel (see column 3 lines 30-46 of Gretz).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the inner surface of the sleeve member of the assembly of Sheehan with a pair of arm members extending inwardly from the inner surface of the sleeve member as taught by Gretz in order to hold it fast to the trailing end of the connector and

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improving continuity and lowering the millivolt drop between the cable, the fitting and the panel.

Regarding claim 3, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, but fails to disclose said inner sleeve member is further defined as comprising two pairs of arm members extending-inwardly from the inner surface of the sleeve member, with each pair of arm members being in juxtaposed facing relationship to each other. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide any number of arm members , since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 4, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, with respect to each pair of arm members formed on each opposed side of the sleeve member are in juxtaposed, spaced, cooperating-relationship with each other. It is noted that the modified assembly of Sheehan meet the structural limitations.

Regarding claim 5, considering the drawings objection, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including the arm members extending inwardly from the inner surface of the sleeve member are each further defined as comprising a first, intermediate, sloping section extending from the sleeve member and a second, sloping, end section extending from the intermediate section at an angle relative thereto, positioned for mating engagement and securement with an electrical

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cable when inserted therein (see fig 8 of Gretz). It is noted that the modified assembly of Sheehan meet the structural limitations.

Regarding claim 6, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including said electrical cable comprises a curved outer surface and the end section of each of said arm members is further defined as comprising a curved terminating edge constructed for mating, engaged relationship with the surface of the electrical cable (see fig 8 of Gretz).

Regarding claim 7, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including the intermediate section of each arm member of the inner sleeve member is further defined as comprising different axial lengths, whereby said pair of arm members engage the electrical cable at different axial positions thereof (see fig 8 of Gretz). It is noted that the modified assembly of Sheehan meet the structural limitations.

Regarding claim 8, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein the intermediate section of each arm member of the inner sleeve member is further defined as comprising substantially equivalent axial lengths, whereby said arm members engage the electrical cable at substantially equivalent, diametrically opposed positions (see fig 8 of Gretz). It is noted that the modified assembly of Sheehan meet the structural limitations.

Regarding claim 9, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including, wherein the end section of each arm member

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is further defined as being bifurcated to create two separate and independent finger members formed therein (see fig 8 of Gretz).

Regarding claim 10, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein each of said separate and independent finger members formed on the end section of each of said arm member comprises different angular relationships relative to the intermediate section (see fig 8 of Gretz).

Regarding claim 11, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein each of said arm members is further defined as comprising side edges formed in juxtaposed, spaced, parallel relationship with each other, and the intermediate section is defined as extending inwardly from the sleeve member along a first bend line defining a first angle relative to the inside surface of the inner sleeve member, and the terminating end section is further defined as sloping inwardly along a second bend line defining a second angle relative to the inside surface of the sleeve member (see fig 8 of Gretz).

Regarding claim 12, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein said second bend line is further defined as being sloped relative to the side edges of each of the arm members (see fig 8 of Gretz).

Regarding claim 13, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including , wherein said electrical cable is further defined

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as comprising a metal sheath cable or conduit having a sloping helical groove formed therein, and the slope of the second bend line is further defined as being formed substantially equivalent to the slope of the helical groove for assuring secure, mating, interengagement of the terminating end section with the surface of the cable (see fig 8 of Gretz).

Regarding claim 14, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein said second bend line is further defined as being substantially perpendicular to the side edges of each of the arm members (see fig 8 of Gretz).

Regarding claim 15, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein said first angle is further defined as ranging between about 10 degree and 30 degree (see column 6 lines 20-35 of Gretz), but fails to disclose ranging between about 15 degree and 38 degree. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified assembly of Sheehan with said first angle is further defined as ranging between about 15 degree and 38 degree , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233 (CCPA 1980).

Regarding claim 16, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein said first angle is further defined as ranging between about 50 degree and 70 degree (see column 6 lines 20-35 of Gretz), but

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fails to disclose ranging between about 45 degree and 75 degree. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the modified assembly of Sheehan with said second angle is further defined as ranging between about 45 degree and 75 degree , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233 (CCPA 1980).

Regarding claim 17, the modified assembly of Sheehan disclose all the features of the claimed invention as shown above, including wherein said inner sleeve member comprises a substantially flat wall portion integrally formed therein and longitudinally extending along substantially the entire surface thereof, for use in positioning the inner sleeve Member in the desired orientation in the housing (see fig 1 of Sheehan).

Allowable Subject Matter

5. Claims 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reasons for the indication of the allowability of claims 18-20 are the inclusion therein, in combination as currently claimed, of the limitation of each of said arm members are further defined as comprising a tab member formed at the juncture between the

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intermediate section and the sleeve member, with said tab member extending radially outwardly from the inner sleeve member

The previously listed limitation is neither disclosed nor taught by the prior art of record, alone or in combination.

Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gretz, Gretz, and Gretz disclose a box similar to applicant's claimed invention.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhiru Patel whose telephone number is 571-272-1983. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Dhiru Patel

Primary Examiner

Group Art Unit 2831

July 6, 2004

Dhiru Patel
Primary Examiner
7/6/04.